AR 201-12549 b3

ROBUST SUMMARY
ALKYL SULFIDE CATEGORY
CAS # 67762-55-4
GENETIC TOXICITY ELEMENTS: GENETIC TOXICITY IN VIVO

Test Substance	
CAS #	CAS # 91770-97-4
Chemical Name	Alkyl (C12-C16) sulfide.
Remarks	This chemical is an analog to the C15-C18 alkene derivative (CAS # 67762-55-4; Alkenes, C15-18 alpha, sulfurized) in the HERTG's Test Plan for Alkyl Sulfide Category. For more information on the chemical, see Section 2.0 "Chemical Description of Alkyl Sulfide Category" in HERTG's Test Plan for Alkyl Sulfide Category.
Method	
Method/Guideline followed	Method consistent with OECD 474 and EPA OPPTS 870.5395
Test Type	Mouse micronucleus test
GLP (Y/N)	Y
Year (Study Performed)	1996
Species	Mice
Strain	B6C3F1
Sex	Male
Route of administration	Intraperitoneal
Doses/concentrations	0, 500, 1000, and 2000 mg/kg/day, plus negative control (vehicle = corn oil) and positive control (= cyclophosphamide)
Exposure Period	Three consecutive days
Statistical methods	Statistical analysis was not performed on the frequency of micronucleated PCEs since test article animals had lower average numbers of micronucleated PCEs compared to controls.
Remarks field for test conditions	There was a range-finding phase of the study, which consisted of four groups of two male mice/group. Dose levels were 0, 500, 1000, and 2000. Groups of five mice each were dosed intraperitoneally with 0, 500, 1000, and 2000 mg/kg/day for three consecutive days and then sacrificed one day after the last dose. The positive control was administered as a single oral dose approximately 24 hours prior to sacrifice. Bone marrow cells were analyzed for the number of polychromatic erythrocytes (PCEs) which contained at least one micronucleus. A minimum of 2000 PCEs were analyzed from each animal from the vehicle control and from mice dosed with the test article. A minimum of 1000 PCEs was analyzed from each animal dosed with the positive control.

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Results	
Remarks	The test article, when dosed to mice at 500, 1000 and 2000 mg/kg/day for three consecutive days did not induce an increase in the number of micronuclei. There was an indication of slight bone marrow cytotoxicity at the highest dose in the micronucleus phase. The decrease was statistically different from the vehicle control. This decrease was due to the lower percentage of PCEs for two animals. The responses obtained from the negative and positive control articles confirmed the reliability that the test system was capable of detecting compounds that induce micronuclei.
Conclusions	The test article did not cause an increase in micronuclei in developing erythrocytes in bone marrow from male B6F3C1 mice at the doses tested. There was a slight cytotoxic effect on developing erythrocytes at 2000 mg/kg/day, the maximum dose typically used in the mouse micronucleus phase.
Data Quality	Reliable without restrictions.
References	This robust summary was prepared from an unpublished study by an individual member company of the HERTG (the underlying study contains confidential business information).
Other	Updated: 12-29-99